ISAC Meeting – March 2013

ACTION OR INFORMATION ITEM

SPONSOR (Name/Email): Edward L. Mills/elm5@cornell.edu

TOPIC: Movement of Monoecious Hydrilla and Links to Climate in the Northern U.S.

SPEAKER (Name/Email): Michael D. Netherland / mdnether@ufl.edu

1. DESCRIPTION OF AGENDA ITEM: The submersed plant hydrilla (*Hydrilla verticillata* L.f. Royle) continues to move northward and a series of recent events suggest this rate of expansion may be increasing. Recent discoveries of hydrilla in Lake Cayuga, NY and in the Erie Canal have been of particular concern to resource managers in New York as these sites represent high profile infestations that may allow further spread to significant nearby waters (e.g. Finger Lakes, Great Lakes, Adirondack Park Lakes, Lake Champlain etc). Moreover, the monoecious biotype of hydrilla has become established throughout long stretches of the Ohio River and other rivers suggesting this plant may be much more tolerant than predicted to harsh environmental conditions (e.g. turbidity, flow, cold winters). As hydrilla becomes our first national aquatic weed, the invasion ecology of the monoecious biotype remains largely unknown. It is expected that a direct link between invasive properties of this plant and changing climactic conditions in the Northeast and upper Midwest will increase the likelihood of hydrilla being a serious weed in this region. Disjunct introductions of hydrilla are likely to increase significantly over the next decade and the implications of hydrilla movement into the natural glacial lakes of the northern tier will be discussed. Moreover, results from a recent 2 day Symposium focusing on research and management needs for monoecious hydrilla will be presented to the ISAC group.

2. WHY IS THIS ITEM IMPORTANT TO NISC / ISAC? HOW IS IT RELATED TO THE NATIONAL INVASIVE SPECIES MANAGEMENT PLAN? The movement of hydrilla into the public water bodies of the northern tier states is of concern for the following reasons: 1) thousands of glacial lakes support diverse plant communities and the introduction and spread of hydrilla in these systems may significantly alter littoral communities; 2) triploid grass carp are widely used for large-scale hydrilla control in southern and mid-Atlantic states, but given their non-selective nature, use of carp in natural lakes that support abundant native vegetation is highly unlikely ; 3) current eradication strategies demand that lakes be managed for 6+ consecutive years in order to remove hydrilla; 4) public waters tend to have strong stakeholder groups and they are often very adamant about active management of invasive plants; and 5) spread of hydrilla in this region will likely create both strong advocates and opponents for and against aggressive and widespread management. This item is important to NISC/ISAC as hydrilla has the potential to become a dominant invasive species issue in the northern tier states and with literally thousands of natural lakes in this region, the public will follow this issue very closely.

3. PREVIOUS ACTIONS TAKEN BY NISC / ISAC ON THIS ITEM: None

4. ACTION REQUESTED OF NISC / ISAC: Elevate the need for research on monoecious hydrilla and strategies for its control and management in U.S. waters.

5. ALTERNATIVES:

6. ATTACHMENTS: A Symposium focusing on research and management needs for Monoecious Hydrilla in Northern Tier Water was held in Syracuse, NY during September 2012. This multi-agency meeting was sponsored by the U.S. Army Corps of Engineers and an agenda for that workshop is attached.